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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,813	02/05/2002	Mark H. Schultz	1094.183US1	8434

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EXAMINER

NGUYEN, DANNY

ART UNIT PAPER NUMBER

2836

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,813

Applicant(s)

SCHULTZ ET AL.

Examiner

Danny Nguyen

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,10,11 and 17-26 is/are rejected.
- 7) ☒ Claim(s) 2-9 and 12-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 10, 11, 17-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Rozman et al. (USPN 5,438,502).

Regarding to claims 1 and 11, Rozman et al disclose an over-load protection circuit for an engine-generator from damage (see fig. 2 and 3), the circuit comprises an engine (col. 3, lines 14-15), a generator (10) driven by the engine, the generator (10) having an output coupled to the load, the generator including a generator exciter (12) controlling a load signal using a signal (16) received at the exciter (12), a load power sensing circuit (comprising a load current sensor 40 and a load voltage sensor 42, and voltage estimator 45), including an input for coupling to a load and an output providing a load power signal measuring an indication of power delivered to the load (col. 3, lines 55-65), and a voltage regulator circuit (26), including an output configured for coupling to the generator exciter (12) (the output regulator 26 connected to the generator 12 via a feedback signal, see fig. 2), and an input coupled to the load sensor (45) to receive the sensed power indication (from the current and voltage sensors 40 and 42), the regulator (26) decreases a magnitude of voltage delivered from a generator (10) to the

load when the sensed load power indication reaches maximum level to prevent the power delivered from generator (10) to the load from exceeding a maximum load power value (col. 4, lines 7-15).

Regarding to claims 10 and 17, Rozman et al. disclose the voltage regulator (26) includes a load voltage sensing circuit (42), including an input coupled to the load and providing an output indicating a load voltage (col. 3, lines 65-68), a voltage reference circuit (54, shown in fig. 3) coupled to the load sensing circuit (45) and providing a reference voltage, and the reference voltage (54) is constant when the load is below the threshold level and varies when the load is exceeding the maximum level (col. 4, lines 63-66).

Regarding to claims 18, 22, Rozman et al disclose a method for generating and delivering an AC power to a load, the method includes sensing a load power (45) delivered from a generator (10) to the load (fig. 2), determining whether the delivered power has reached a maximum load, and if the delivered power has reached a maximum load, then reducing a load voltage to clamp the power about the maximum value (load regulator 26)(col. 4, lines 7-15).

Regarding to claim 19, Rozman et al disclose determining whether the delivered power has reached a maximum load, and if the delivered power has reached a maximum load includes comparing the load power to a reference voltage (54) (shown in fig. 3), computing a different between the load power and the reference power (computing by integrator 74).

Regarding to claims 23 and 24, Rozman et al. disclose using a feedback loop to control the load voltage when the load power is below the threshold value and prevent the load from exceeding maximum value, and reducing the load voltage when the load power reached the maximum value (see fig. 2).

Regarding to claims 20 and 25, Rozman et al. disclose computing a PID control signal (error signal, col. 5, lines 7-20) using the different between the load power and reference power.

Regarding to claims 21 and 26, Rozman et al. disclose switching in a load power control feedback loop (24) when the load exceeding the threshold value.

Allowable Subject Matter

2. Claims 2-9, and 12-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 2 and 12 recite an overload protection circuit includes a load power calculation circuit, including a first input coupled to the load voltage sensing circuit output to receive the load voltage signal, a second input connected to the load current sensing circuit output to receive the load current signal and coupled the load power sensing circuit output to provide the load power signal based on a multiplication of the load

voltage signal and the load current signal and a power factor calculated using phase angle between the load voltage signal and the load current signal.

Claims 3 and 13 recite an overload protection circuit includes a first different circuit, including a first input coupled to the output of the voltage reference circuit to receive the voltage reference, and a second input coupled to the output of the load voltage sensing circuit to receive the load voltage signal, and a third input coupled to the output of the load power sensing circuit to receive a signal based on the load power signal, the first different circuit also including an output providing a first difference signal indicative of difference between the load voltage and the sum of a reference voltage and the signal based on the load power signal.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

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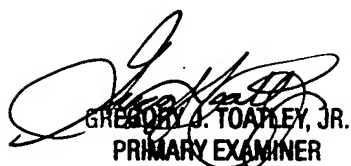
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DN

DN

July 23, 2003


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER